



**American
Iron and Steel
Institute**



May 11, 2011

The Honorable Lisa Jackson
Administrator
U.S. Environmental Protection Agency
Ariel Rios Building – 1101 A
1200 Pennsylvania Avenue N.W.
Washington, DC 20460

Re: Petition for Administrative Reconsideration and Amendment of Boiler MACT, Boiler GACT, and CISWI Rules

Dear Administrator Jackson:

Pursuant to Section 307(d)(7)(B) of the Clean Air Act (“CAA”) and EPA’s inherent discretion to reconsider its own rules, the American Iron and Steel Institute (“AISI”) and the American Coke and Coal Chemicals Institute (“ACCCI”) hereby request that the Environmental Protection Agency (“EPA”) reconsider portions of: 1) the National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters (“Boiler MACT”), 76 Fed. Reg. 15608 (Mar. 21, 2011); 2) National Emission Standards for Hazardous Air Pollutants for Area Sources: Industrial, Commercial, and Institutional Boilers (“Boiler GACT”), 76 Fed. Reg. 15554 (Mar. 21, 2011); and 3) Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Commercial and Industrial Solid Waste Incineration Units (“CISWI”), 76 Fed. Reg. 15704 (Mar. 21, 2011). AISI is the principal trade association representing the North American steel industry and represents member companies accounting for approximately 80% of the U.S. steelmaking capacity with facilities located in 33 states. ACCCI represents companies accounting for 100% of the U.S. production of metallurgical coke used for iron and steel making and 100% of the nation’s production of coal chemicals, which combined have operations in twelve states.

AISI and ACCCI filed extensive comments on the proposed Boiler MACT and Boiler GACT rules seeking specific revisions and clarifications to the regulatory language. *See* Docket # EPA-HQ-OAR-2002-0058-2998; EPA-HQ-OAR-2002-0058-2849; EPA-HQ-OAR-2006-0790-2007; EPA-HQ-OAR-2006-0790-2061. AISI also filed extensive comments on the proposed CISWI rule. *See* Docket # EPA-HQ-OAR-2003-1119-2111.

With respect to the Boiler MACT in particular, AISI and ACCCI appreciate EPA's incorporation in the final rule of several of our suggested revisions that will facilitate the environmentally beneficial use of process gases. However, we believe that several additional changes are needed in order to revise aspects of the final rule that will otherwise discourage the use of process gases in boilers and inappropriately result in increased emissions of both conventional pollutants and greenhouse gases ("GHGs"). Such changes support EPA's goal of not adopting requirements that would result in an overall increase in hazardous air pollutant ("HAP") emissions, and will eliminate inconsistencies with the emissions reductions goals of the CAA and Section 112 in particular. Further, such changes are needed to advance our nation's energy policy goals and EPA's efforts to reduce GHGs. Accordingly, we request that EPA amend several definitions in the final rule to ensure the efficient utilization of excess process gases in lieu of virgin fossil fuels.

EPA previously announced that it would reconsider specific aspects of the Boiler MACT rule in a Federal Register notice issued on the same day as the final rule. *See* 76 Fed. Reg. 15266 (Mar. 21, 2011). Several of the issues identified by EPA for reconsideration, including revisions to proposed subcategories in the Boiler MACT rule and the establishment of a fuel specification through which fuels other than natural gas may be considered to be under the Gas 1 subcategory, are of great importance to AISI and ACCCI, and we plan to comment on those issues in more detail in response to EPA's Notice of Reconsideration. EPA has already conceded that these are issues of central relevance to the rule which either arose after the rule or were impracticable to comment upon during the public comment period. However, as the scope of EPA's planned reconsideration of these issues was unclear in EPA's Notice of Reconsideration, AISI and ACCCI are formally requesting reconsideration of specific aspects of these issues. AISI and ACCCI hope that our request for reconsideration on these issues will inform EPA's forthcoming reconsideration.¹

EPA indicated that its proposed reconsideration notice would also include any additional issues raised by stakeholders that are appropriate for reconsideration. As outlined below, AISI and ACCCI believe that it would be appropriate for EPA to reconsider several additional issues that were not specifically identified in EPA's Notice of Reconsideration. While AISI and ACCCI have previously commented on some of these issues, EPA has already stated that it promulgated the final rule because of a court-ordered deadline and had insufficient time to fully evaluate comments received. For these issues, we believe EPA attempted to accommodate stakeholder comments but did so incompletely due to time constraints. Under these unique circumstances in which EPA acknowledges that the final rule was premature, EPA should reconsider all such aspects of the rule, regardless of whether these issues arose after the close of the comment period or were impracticable to comment upon and otherwise meet the standard for

¹ EPA also indicated that several additional issues may warrant reconsideration and revision including important issues regarding the proposed dioxin emission limits and testing requirement for major source boilers. *See* 76 Fed. Reg. at 15267. We agree that these additional issues are of central relevance to the rule and that there was inadequate notice they might be included in the final rule such that reconsideration is appropriate.

mandatory reconsideration under Section 307(d)(7)(B) of the Clean Air Act (“CAA”). These issues are of central relevance to the rule and will have a considerable impact on whether the final rule is consistent with underlying pollution reduction goals of the CAA.² Accordingly, AISI and ACCCI request that EPA grant our petition for reconsideration and make the following refinements to the Boiler MACT rule:

- Amend the definition of waste heat boiler to include boilers that utilize process gases that would otherwise be flared;
- Amend the definition of waste heat process heater to include heaters that utilize process gas that would otherwise be flared;
- Amend the definition of process heater to clarify that waste heat process heaters are excluded from the definition;
- Amend the definition of metal process furnace to include any gas fired process furnace and explicitly include stress relief furnaces and galvanizing/galvanneal furnaces;
- Amend the definition of “other gas 1 fuel” and related testing and categorization provisions by removing the criterion that such gaseous fuel not exceed 4 parts per million, by volume, of hydrogen sulfide;
- Amend the definition of blast furnace fuel-fired boiler to account for periods of blast furnace gas curtailment;
- Amend the dioxin/furan emission limits to align with work practice standards proposed in the Utility MACT.

AISI and ACCCI also request that EPA grant our petition for reconsideration of the issues identified in Sections IV through X below with respect to the Boiler MACT, Boiler GACT and CISWI rules.

I. Amend the definitions of “waste heat boilers” and “process heaters” to include boilers and process heaters that combust process gases that would otherwise be flared.

EPA explained at proposal that it was exempting “waste heat boilers” from the definition of “boiler” because such boilers are primarily used to recover “normally unused energy and convert it to useable heat.” *See* 75 Fed. Reg. at 32065. Waste heat process heaters were exempted for similar reasons. *See id.* at 32066. The same rationale applies equally to waste heat boilers and process heaters that utilize recovered process gases. Excess coke oven gas or other

² In the alternative, we petition EPA to amend the rules to address these comments under its residual authority under CAA §112(d)(6) to periodically review and revise MACT standards.

process gases not otherwise used must be flared to meet environmental and safety requirements. However, such flaring results in the loss of valuable energy. By capturing those gases and moving their point of combustion to a boiler or process heater, previously unused energy is converted to usable heat. As a result, the energy recovered reduces the need to burn fossil fuels (coal, oil, and/or natural gas) to produce the steam and/or electricity generated by the process gas. Thus, the same rationale underlying EPA's exclusion of waste heat boilers and process heaters is equally applicable to units that recover energy from coke oven gas or other process gases.

An exemption for waste heat boilers that is dependent on the point of combustion would create arbitrary regulatory disparities based upon the coke oven technology in place, with no corresponding environmental benefit. As explained in prior comments, coke is produced in either byproduct coke plants or heat recovery coke plants. In byproduct coke plants located at both integrated iron and steel facilities and merchant coke plants, coke oven gas is captured and later combusted in a boiler to create steam and/or generate electricity. In heat recovery plants, the coke oven off-gases are first burned and the heat is then conveyed to waste heat boilers where it is used to create steam to generate electricity. In both cases, coke oven process gases are recovered and combusted to ultimately create steam from heat that would otherwise be wasted. However, the final Boiler MACT rule would exempt one process completely while subjecting the other to stringent regulatory requirements merely on the basis of where the coke oven process gas is combusted. These regulatory requirements will impose strong financial incentives that would force many operators to burn substitute fossil fuels in their boilers while simultaneously flaring available coke oven gas to avoid the installation of costly controls.

In its response to comments, EPA acknowledged that "it should not provide excessive regulatory requirements that might have the side effect of flaring gases." See EPA Response to Comments, EPA-HQ-OAR-2002-0058-2849.1, Excerpt 2. However, the stated attempt to resolve this acknowledged concern indicates that the Agency had insufficient opportunity to review and properly understand the issue. Instead of recognizing the true "waste heat boiler" nature of boilers that combust process gases which would otherwise be flared, EPA cited new provisions in the final Boiler MACT rule establishing gas fuel specifications to qualify for the Gas 1 Subcategory, which it stated would "balance the need to ensure that the gases combusted are low in contaminants with the need to avoid excess gas flaring." *Id.* That rationale misses the point as all process gases will necessarily be combusted -- either in boilers or at flares. Since these gases must be combusted somewhere, the primary question becomes which location (a flare or a boiler) is best suited to minimize *overall* emissions and maximize energy efficiency.

One prime example of this inconsistency is the application of EPA's attempted cure to coke oven gas combustion, as EPA acknowledges elsewhere in its response to comments that "most of the units that exceed the specification will be firing coke oven gas." See EPA Response to Comments, EPA-HQ-OAR-2002-0058-2998.1, Excerpt 8. If EPA maintains the fuel specification (see Part III below for suggested amendments to the Gas 1 fuel specification), the final rule will not in fact balance the need to ensure that gases combusted are low in contaminants with the need to avoid excess flaring, as EPA has failed to consider that coke oven gas not meeting the specifications will be combusted at a flare anyway. Indeed, since

combustion at the flare is less efficient than combustion in a boiler, the perverse result is higher HAP, criteria pollutant, and GHG emissions. Second, the steam generated from excess coke oven gas will have to be generated through the combustion of natural gas instead, resulting in additional HAP, criteria pollutant, and GHG emissions. We believe this is wholly inconsistent with EPA's admission at proposal that "[i]t would be inconsistent with the emissions reductions goals of the CAA, and of § 112 in particular, to adopt requirements that would result in an overall increase in HAP emissions." 75 Fed. Reg. at 32025.

EPA did not provide a meaningful response to AISI and ACCCI's concerns that placement of boilers combusting coke oven gas in the Gas 2 Subcategory would result in increased net emissions. Rather, EPA stated that "it does not have the information available to determine how many of the remaining gas 2 units will install control vs. flare the gas and purchase natural gas." See EPA Response to Comment EPA-HQ-OAR-2002-0058-2998.1 Excerpt 7. In fact, both AISI and ACCCI demonstrated that it would be economically unreasonable for a plant operator to install controls given the extremely high capital and annual costs associated with these controls. See AISI comments p.4; ACCCI comments p. 6. Indeed, EPA relied on the extremely high cost of measuring and controlling emissions to justify setting a work practice standard for the Gas 1 subcategory. See 76 Fed. Reg. at 15638. Given EPA's demonstrated knowledge of the prohibitive cost of measuring and controlling emissions from gas-fired boilers and the evidence presented by AISI and ACCCI demonstrating the perverse emissions impacts of requiring controls, EPA's failure to promulgate regulatory language that would properly minimize HAP emissions is arbitrary and capricious.

In addition, the references in the definitions of "waste heat boiler" and "waste heat process heater" to heat recovery steam generators and recuperative process heaters, respectively, could be read to inappropriately narrow the scope of these definitions and the intended exclusions. AISI and ACCCI believe that the definitions of "boiler" and "process heater" were intended to exclude those units meeting the definitions of waste heat boiler and waste heat process heater, not just units identified as heat recovery steam generators and recuperative process heaters.

In order to avoid these undesirable ambiguities, AISI and ACCCI request that EPA amend and clarify the definitions of waste heat boilers and process heaters to expressly include boilers and process heaters that utilize excess process gases that would otherwise be flared. The amended definition of waste heat boiler should read as follows:

Waste Heat Boiler means a device that recovers normally unused energy or process gas that would otherwise be flared and converts it to useable heat. Waste heat boilers include, but are not limited to, heat recovery steam generators.

The definition of waste heat process heater should be similarly amended to read as follows:

Waste heat process heater means an enclosed device that recovers normally unused energy or process gas that would otherwise be flared and converts it to usable heat. Waste heat process heaters include, but are not limited to, recuperative process heaters.

These above amendments would further support EPA's stated goal of encouraging the recovery of energy from high heating value gases that would otherwise be flared. *See* 76 Fed. Reg. 15617. There, EPA stated that the rule was intended to encourage energy recovery at units that are either the affected source or the control device for another MACT. However, this exemption does not adequately address process gases that are currently used for energy recovery in units that may not be an affected source or a control device regulated by an existing Part 63 standard. Rather, that same rationale must be extended to protect against requirements that would force valuable process gases to be flared in lieu of the current practice of using them for energy recovery.

Finally, EPA should amend the final rule in order to more explicitly state that waste heat process heaters do not fall under the rule's definition of a process heater. The existing definition of boiler clarifies that "waste heat boilers are excluded from this definition." A similar qualifier is needed in the definition of "process heater." AISI and ACCCI suggest that EPA add a sentence at the end of the definition of "process heater" so that it reads "Waste heat process heaters are excluded from this definition."

II. EPA should amend the definition of "metal process furnaces" to explicitly include additional categories of metal process furnaces and allow for the use of fuels other than natural gas.

While many metal process furnaces use natural gas, others recycle (or can be used to efficiently recycle) process gas, such as coke oven gas, in order to reduce the amount of additional natural gas needed to operate these units. In order to enable such efficient use of process gases, AISI and ACCCI suggested in our prior comments that EPA explicitly include furnaces that combust process gases in the definition of "metal process furnaces." In its response to comments, EPA appeared to agree that the metal process furnace subcategory should be inclusive of furnaces combusting other gaseous fuels, responding that "EPA disagrees with the commenter and [sic] that only metal process heaters firing natural gas meet the definition of this subcategory." *See* EPA Response to Comments, EPA-HQ-OAR-2002-0058-2998.1, Excerpt 16. Despite EPA's agreement that the subcategory should include furnaces burning other gaseous fuels, the final rule continues to state that "Metal process furnaces include natural gas-fired annealing furnaces, preheat furnaces, reheat furnaces, heat treat furnaces, and homogenizing furnaces." *See* 40 CFR § 63.7575. While the definition is not by its nature exclusive, the explicit inclusion of natural gas-fired furnaces and the failure to mention other gaseous fuels has the potential to create unnecessary confusion. Accordingly, we request that EPA clarify the definition to explicitly include metal process furnaces fired by any gaseous fuel. By referring to

the definition of “gaseous fuel” instead of the definition of “natural gas,” the definition would more properly reflect EPA’s stated intent.

In addition, AISI and ACCCI believe that definition should explicitly include other types of metal process furnaces not currently enumerated, including stress relief furnaces and galvanizing/galvanneal furnaces. In response to comments from AISI and ACCCI requesting the explicit inclusion of additional furnace types, EPA modified the rule to include homogenizing furnaces but declined to include all other furnace types, stating that determinations could be made on a case-by-case basis. *See* Response to Comments, EPA-HQ-OAR-2002-0058-2998.1, Excerpt 18. Such case-by-case determinations are time consuming for both regulated facilities and state permitting authorities and would introduce unnecessary uncertainty and enforcement risk over the status of certain metal process furnaces that are not explicitly listed. Accordingly, we request that EPA reconsider its decision to not explicitly list additional types of metal process furnaces.

To reflect the suggestions mentioned above, we request that EPA amend the definition of metal process furnaces to read as follows:

Metal process furnaces include *gaseous fuel*-fired annealing furnaces, preheat furnaces, reheat furnaces, aging furnaces, heat treat furnaces, homogenizing furnaces, *stress relief furnaces*, and *galvanizing/galvanneal furnaces*.

III. Amend the definition of “other gas 1 fuel” and related testing and categorization provisions by removing the criterion that such gaseous fuel not exceed 4 parts per million, by volume, of hydrogen sulfide.

In its final rule, EPA defines “other gas 1 fuel” as “gaseous fuel that is not natural gas or refinery gas and does not exceed the maximum concentration of 40 micrograms/cubic meters of mercury and 4 parts per million, by volume, of hydrogen sulfide.” *See* 40 CFR § 63.7575. EPA states in the preamble that it selected the hydrogen sulfide specification because natural gas purity is commonly defined by hydrogen sulfide content and testing for chlorine content would not be feasible given existing test methods. *See* 76 Fed. Reg. 15639. However, hydrogen sulfide is not a HAP and EPA failed to explain how the presence or absence of hydrogen sulfide relates to the presence or absence of specific HAPs which the Boiler MACT is intended to regulate.

EPA’s failure to demonstrate any correlation between hydrogen sulfide and regulated HAPs renders that specification arbitrary and capricious under the standards for HAP surrogates outlined by the D.C. Circuit. *See National Lime Association v. EPA*, 233 F.3d 625 (D.C. Cir. 2000); *Sierra Club v. EPA*, 353 F.3d 976 (D.C. Cir. 2004); *Mossville Environmental Action Now v. EPA*, 370 F.3d 1232 (D.C. Cir. 2004). These cases established that to use a surrogate, EPA must, at the very least, establish as a threshold matter that there is a correlation between the proposed surrogate (here, hydrogen sulfide) and HAPs regulated under the rule. *See Mossville* at 1242. In *Mossville*, the court held that EPA’s use of vinyl chloride as a surrogate was arbitrary and capricious because EPA did not establish a correlation between vinyl chloride and the

regulated HAP. Rather, the *Mossville* court found that EPA did not even identify which HAP vinyl chloride served as a surrogate for, rendering it impossible for commenters and a reviewing court to assess. Here, EPA has similarly failed to identify any HAP for which hydrogen sulfide may act as a surrogate, much less establish a correlation.

Even if EPA had properly identified HAP for which hydrogen sulfide serves as a surrogate and properly established a correlation, D.C. Circuit precedent would require more before the use of hydrogen sulfide as a surrogate could be considered reasonable. *National Lime* and *Sierra Club* established a three part reasonableness test for the use of particulate matter as a surrogate, of which an established correlation between the surrogate and the HAP is only the first part. Applying that reasonableness test here, EPA would have to establish all three of the following: 1) the relevant HAP are invariably present in hydrogen sulfide; 2) hydrogen sulfide control technology indiscriminately captures the relevant HAP; and 3) hydrogen sulfide control is the only means by which facilities achieve reductions in relevant HAP emissions. EPA has not made even the preliminary findings that are required to determine that its use of hydrogen sulfide as a surrogate for HAP is reasonable. Accordingly, the hydrogen sulfide specification does not meet the D.C. Circuit's reasonableness test for HAP surrogates.

EPA's selection of a specification based on the hydrogen sulfide content of natural gas alone is also contrary to EPA's stated intent. In response to comments that EPA should include gases such as coke oven gas in the Gas 1 Subcategory, EPA stated that "it has determined that to the extent that process gases are comparable to natural gas *and refinery gas*, combustion of those gases in boilers should be subject to the same standards as combustion of natural gas and *refinery gas*." 76 Fed. Reg. 15639 (emphasis added). Despite stating that it intended to look to fuels that were comparable to both natural gas and refinery gas, EPA looked only to natural gas for the hydrogen sulfide specification. Even assuming hydrogen sulfide is an acceptable parameter for the specification, EPA must place the specification at a level that is responsive to hydrogen sulfide levels in all Gas 1 fuels, not merely natural gas.

In addition, many sources have already installed gas cleaning controls, at great expense, to enable the sources to recover energy from process gases so that they can be burned in accordance with existing local regulations, including SIP provisions to meet and maintain compliance with the sulfur NAAQS. To change the sulfur criterion for the use of the process gases in boilers and process heaters from what has previously been established could unnecessarily and inappropriately limit the energy recovery from these gases and result in additional emissions of HAPs and criteria pollutants if these process gases were to be flared and replaced with purchased natural gas.

IV. The definition of blast furnace fuel-fired boiler or process heater must account for periods of Blast Furnace Gas curtailment.

We appreciate EPA's recognition in the final Boiler MACT rule that the criteria for determining whether a boiler is blast furnace gas fuel-fired unit subject to the exemption from the rule should focus on the *volume* of blast furnace gas combusted rather than the relative *heat-input* of that gas. As acknowledged in the preamble to the final rule, that switch was critical "so

that the units that were intended to be exempted from this final rule would be exempted.” 76 Fed. Reg. at 15617. The important switch from heat-input to volume, however, is still insufficient to accomplish the consistent exclusion of those units. As noted in our comments on the proposed rule, the consistent availability of blast furnace gas is dependant on the operation of blast furnaces. While operators strive to maximize the consistency of blast furnace operation, those units require maintenance and periodic blast furnace gas curtailments necessarily occur.

Without modification, the new 90% volume-based annual average requirement provides insufficient flexibility to account for the operating realities of blast furnaces. As a result, boilers that consistently and primarily combust blast furnace gas would still be subject to constant threat of reclassification (both in and out of exempt status) creating significant regulatory uncertainty with no related environmental benefit. While EPA’s response to our comments on this topic stated that the agency “agrees” with the need to conform this exemption to the reality of these units, modification is necessary to prevent this unintended consequence. The solution requires both excluding periods of involuntary blast furnace gas curtailment and establishing a lower annual volume-based threshold (50-75%) to provide sufficient flexibility to account for less severe curtailment issues that still allow for combustion of a predominance of BFG by volume at a boiler.

For the same reason, if EPA elects to include boilers fired by other process gases in the definition of waste heat boiler as we urge above, it must accommodate operational realities and allow for flexibility during periods of curtailment of process gases such as coke oven gas.

V. EPA’s elimination of a numerical Dioxin/Furan limit from the proposed Utility MACT Rule justifies reconsideration of the numerical limits in Boiler MACT.

EPA should grant reconsideration on its decision to set numerical dioxin/furan limits for industrial boilers and process heaters in light of new information not available during the comment period on an issue of central relevance. EPA’s Notice of Reconsideration of Final Rules, 76 Fed. Reg. 15266 (Mar. 21, 2011), identified “the proposed dioxin emission limit and testing requirement for major source boilers” as an issue that may warrant reconsideration because it is an issue of “central relevance that arose after the period for public comment or may have been impracticable to comment upon.” In response to comments on Boiler MACT, EPA acknowledged the difficulties in setting a MACT floor given the number of test results below the detection limit and the 40-50% imprecision problem close to the detection limit, among other things. In its haste to meet the Court appointed deadline, EPA retained its numerical emission limit for dioxin/furans in the final rule. After the comment period closed on the Boiler MACT rule, EPA had the opportunity to consider a MACT floor for dioxin-furan in another combustion-related MACT rule – the Utility MACT.

With the benefit of additional combustion data from utility boilers, EPA decided not to propose a numerical dioxin-furan emission limit in the Utility MACT rule and provided the following explanation:

As noted earlier, the significant majority of the measured emissions from EGUs of dioxin/furan and nondioxin/furan

organic HAP are at or below the MDL of the EPA test methods even though we required 8 hour test runs. As such, EPA considers it impracticable to reliably measure emissions from these units. As mentioned earlier, because the expected measurement imprecision for an emissions value occurring at or near the MDL is about 40 to 50 percent, we are uncertain of the true levels of organic HAP emissions that would be obtained during any test program. Overall, the fact that the organic HAP emission levels found at EGUs are so near the MDL achievable by the available test methods indicates that the results obtained are questionable for all of the organic HAP.

Because the levels of organic HAP emissions from EGUs are so low (at or below the MDL of the available test methods), there is no indication that expending additional cost (i.e., extending the sampling time) would provide the regulated community the ability to test for these HAP that would provide reliable, technically viable results. In fact, the 2010 ICR testing required a longer testing period than normally used and the results were still predominantly below the MDL. Because of the technical infeasibility, the economic infeasibility is that sources do not have a way to demonstrate compliance that is legitimate and we conclude no additional cost will improve the results.

76 Fed. Reg. 25046 (May 3, 2011).

Those same fundamental questions pervade EPA's dioxin/furan analysis in Boiler MACT and require additional scrutiny and public comment under reconsideration. Similar to Utility MACT, the levels of dioxins and furans reported by industrial boilers are very low. Indeed, the strong majority of results included in EPA's emissions test database reported levels below method detection limits for all or some congeners units. That data set also includes numerous other indications of uncertainty including data qualifiers indicating detection below the reporting limit. Due to such broad uncertainty with the underlying data, EPA must fundamentally reevaluate the propriety of establishing numerical dioxin/furan limits in the Boiler MACT rule. Instead, EPA should consider the approach taken in Utility MACT, which was signed after the comment period for Boiler MACT had closed and was thus unavailable for commenters on the Boiler MACT rule to assess and advocate for similar treatment across all combustion-related MACT rules.

Even if numeric dioxin/furan limits are retained, EPA must still reconsider those limits in light of core concerns that regulating dioxins/furans as a category exceeds the Agency's statutory authority. Only two named compounds (dibenzofuran and 2,3,7,8-TCDD) are on the CAA §112(b)(1) HAP list. Despite that limitation (and without explanation), the proposed rules still attempted to regulate dioxins/furans as a class. The final Boiler MACT rule offers EPA's first explanation of that approach, stating "While dibenzofuran and 2,3,7,8-TCDD are two of the

HAP listed in Section 112, all dioxin and furan compounds are considered to be POM and, as such, EPA has the authority to regulate these compounds under Section 112.” 76 Fed. Reg. 15640. That new legal justification is not a logical outgrowth of the proposed rule and is of central relevance as rescission and reformulation of the dioxin/furan limits would be necessary if it is incorrect.

VI. The energy assessment obligations in Boiler MACT and Boiler GACT require reconsideration.

While AISI and ACCCI appreciate the refinements EPA made to the energy assessment requirements in the final Boiler MACT and Boiler GACT rules, we continue to believe that these requirements are inappropriate in any form because they: 1) are not an “emissions standard,” and 2) have not been demonstrated as a cost-effective beyond-the-floor standard. However, irrespective of these concerns, EPA should reconsider the scope of the proposed energy assessment requirements to ensure that they are limited to the “affected source” regulated by these rules – boilers and process heaters. Only those units and not others located at the same facility are properly within the scope of EPA’s regulatory authority. While EPA’s responses to comments suggest some narrowing (to equipment and facilities associated with energy output from the regulated combustion units), the final position adopted still goes too far and would require the assessment of equipment not covered by Boiler MACT, Boiler GACT or any other Section 112 standard. *See* 40 C.F.R. §§63.7575 and 63.11237. As the scope of energy assessment requirements in both rules were modified and/or clarified in ways that continue to raise legal concerns, reconsideration is appropriate.

VII. EPA’s failure to include health-based emission limits for hydrogen chloride and manganese justifies reconsideration.

EPA’s failure to include a health-based emission limitation for HCl and manganese in the proposed Boiler MACT rule was raised by several commenters. After EPA acknowledged its authority to establish such standards pursuant to CAA §112(d)(4), EPA declined to propose standards “[g]iven the limitations of the currently available information (*i.e.*, the HAP mix where boilers are located, and the cumulative health impacts from co-located sources), the environmental effects of HCl, and the significant co-benefits of setting a conventional MACT standard for HCl.” 75 Fed. Reg. at 32032. EPA sought comment on justifications for setting HBELs, and received numerous comments and data from various industry groups supporting this compliance alternative. Commenters also argued that EPA’s failure to propose HBELs because of limited information was arbitrary and capricious following EPA’s inclusion of HBELs in the 2004 Boiler MACT rule. Despite the information provided, EPA declined to adopt HBELs in the final rule, claiming: 1) EPA lacked information on cumulative effects; 2) EPA could not use HBELs to exclude sources from regulation; 3) non-collateral benefits for non-HAP emissions justified the omission; and 4) it did not solicit comment on a manganese HBEL. *See* 76 Fed. Reg. at 15643.

Reconsideration of EPA’s decision not to set HBELs is appropriate given EPA’s failure to consider and respond to the detailed comments submitted in support of HBELs. In particular,

EPA failed to explain why the four reasons cited for not establishing HBELs in the final rule are valid considerations under § 112(d)(4). Furthermore, EPA failed to explain why these concerns prevented EPA from establishing HBELs in 2011, but did not prevent EPA from establishing HBELs in 2004. This issue is of central relevance to the final rule, as omission of HBELs has led to acid gas and metals standards that are far more stringent than necessary to protect human health and the environment. Controls necessary to comply with these excessively stringent limits will result in unnecessary costs for affected sources.

These gaps in EPA's reasoning justify reconsideration of the decision not to set HBELs in the final rule. On reconsideration, EPA should consider how HBELs may be used to provide cost effectiveness and flexibility to various subcategories, specifically HBELs for acid gases and manganese. Commenters have made a strong case for establishing HBELs for both of these pollutants. The emission limits for HCl are far more stringent than necessary, and a manganese HBEL implemented in conjunction with an alternative "total select metals" ("TSM") standard would address non-volatile HAP while providing needed regulatory flexibility. In order to justify its departure from HBELs between the 2004 rulemaking and the 2011 rulemaking, EPA must address the data and issues raised by commenters upon reconsideration of the final rule.

VIII. Reconsideration of CISWI is necessary in light of the final Definition of Solid Waste Rule.

While we appreciate that EPA was under a court-ordered deadline to promulgate both the CISWI and the solid waste definition rules, the sequencing of the Agency's rulemaking efforts creates the need for reconsideration. The scope and nature of CISWI is necessarily dependant upon the decisions made in the Agency's final Solid Waste Definition rule as that rulemaking determines which units are subject to Boiler MACT and which are subject to CISWI. However, the final Solid Waste Definition rule was not promulgated until the same day as the final CISWI rule. *See* 76 Fed. Reg. 15456. That approach prevented those commenting on CISWI from having sufficient opportunity to fairly evaluate the impacts of EPA's many regulatory decisions in the final Solid Waste Definition rule and assess how they impacted the final CISWI rule. Indeed, EPA acknowledges that the pool of sources subject to CISWI have changed from its initial proposal. *See* EPA Response to Comments, EPA-HQ-OAR-2003-0119-2111, Excerpt 4. As noted in AISI's comments on the proposed CISWI rule, altering the pool of sources subject to Section 129 impacts both the proper subcategorization of those units and related emission limits established. Reconsideration of the final CISWI rule in light of the final Section 129 rule is therefore warranted.

IX. Reconsideration is needed to address the methodology, statistical errors and variability concerns for floor-setting in CISWI and Boiler MACT.

In our initial comments to both the proposed CISWI rule and Boiler MACT, we expressed concerns with the EPA's floor setting process, including EPA's 1) approach of "cherry picking" the best data in setting the standard on a pollutant-by-pollutant basis without regard for the sources from which the data are obtained, 2) misapplication of basic formulae to address variability, distribution, and confidence limits, and 3) failure to take into account the variability associated with emissions from individual units over time. In the final rules, EPA generally used

the same basic approach and steps in setting the MACT floors as in the proposals. When coupled with EPA's very limited database – typically a single 3-run test per pollutant for each CISWI unit for example – EPA's statistical approach still results in inconsistent and potentially unachievable emission standards. Unless EPA reconsiders its MACT floor-setting methodology generally for both CISWI and the Boiler MACT, rectifies its statistical errors, and addresses data gaps, the MACT floors for these two rules remain arbitrary and capricious.


X. EPA should reconsider deleting the definition of “contained gaseous material” from CISWI because the uncertainty may negatively affect energy efficiency projects.

In the final CISWI Rule, EPA deleted the definition of “contained gaseous material.” *See* 76 Fed. Reg. at 15761. The definition was deleted in the final CISWI Rule with no discussion of the change in either the preamble or the response to comments document. *See* 76 Fed. Reg. at 15761. The uncertainty regarding how contained gases will be regulated is compounded by EPA's comments on the definition of “contained gaseous materials” found in its response to comments on the proposed Solid Waste Definition rule. *See, e.g.*, EPA Response to Comments Document for the Identification of Nonhazardous Secondary Materials that Are Solid Waste Rulemaking, Comment 3b-I3-4. EPA's response suggests that certain process gases in pipelines that have not traditionally been used as fuels could be considered solid wastes when combusted. The iron and steel industry is evaluating energy efficiency projects that would harvest process gases with energy value that are not yet being burned for energy recovery. EPA's decision not to define contained gaseous material creates uncertainty that will serve as an obstacle to investment in these energy efficiency projects. Therefore, EPA should reconsider deleting the definition of “contained gaseous material” from the final CISWI rule.

XI. Conclusion

We strongly urge EPA to take the necessary administrative action to make the changes requested. We look forward to a timely response to this petition, and representatives of AISI and ACCCI stand ready and willing to meet with EPA staff at your convenience to clarify our comments or elaborate on their importance.

Sincerely,



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American Iron and Steel Institute



Bruce A. Steiner
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The Honorable Lisa P. Jackson

May 11, 2011

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